# SIGGRAPH 2001 FUNDAMENTALS SEMINAR



#### Michael J. Bailey

San Diego Supercomputing Center & University of California at San Diego

#### Wayne E. Carlson

Advanced Computing Center for Arts & Design (ACCAD) at the Ohio State University

#### **Jackie White**

College of Arts and Letters California State University, Los Angeles

#### **Barb Helfer**

Advanced Computing Center for Arts & Design (ACCAD) at the Ohio State University



### Goals for the day:

- An accessible introduction to computer graphics *jargon*, concepts, techniques, technologies and applications.
- SIGGRAPH the organization, conference, and volunteering
- Pathfinders assistance in navigating the conference



- Computer Graphics Applications (Jackie White)
- Graphics Systems Software (Wayne Carlson)
- Graphics Systems Hardware (Mike Bailey)
- SIGGRAPH (Jackie White)
- Pathfinders (Barb Helfer)



# **Special Thanks to:**

- SIGGRAPH 2001
  - Lynn Pocock, Conference Chair
  - Lou Harrison, Courses Chair
- SIGGRAPH Contributors & Collections
  - Slide Collections
  - Media trailer, video clips
- Other Slide & Video Contributors



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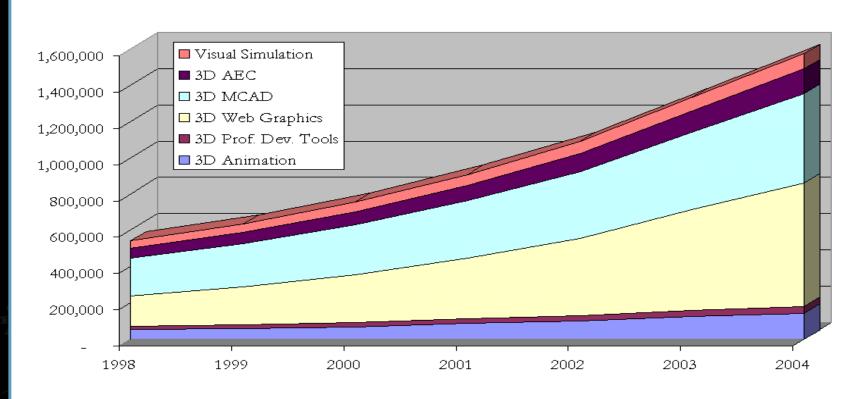
#### **Barb Helfer**

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# Current 3D Software Trends

#### **Annual Unit Shipments for 3D Software**

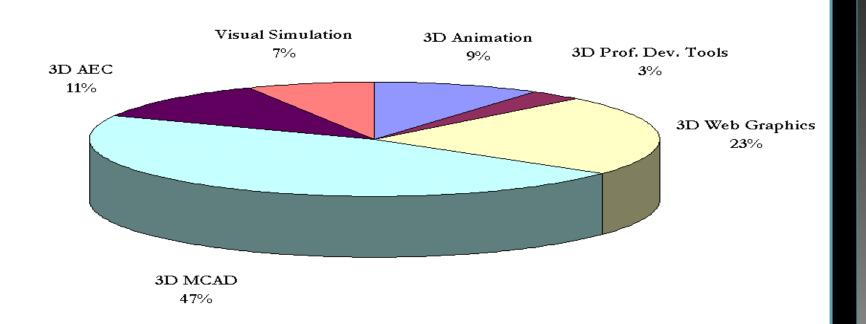


Source: M2 Research



# 3D Software Application Breakdown

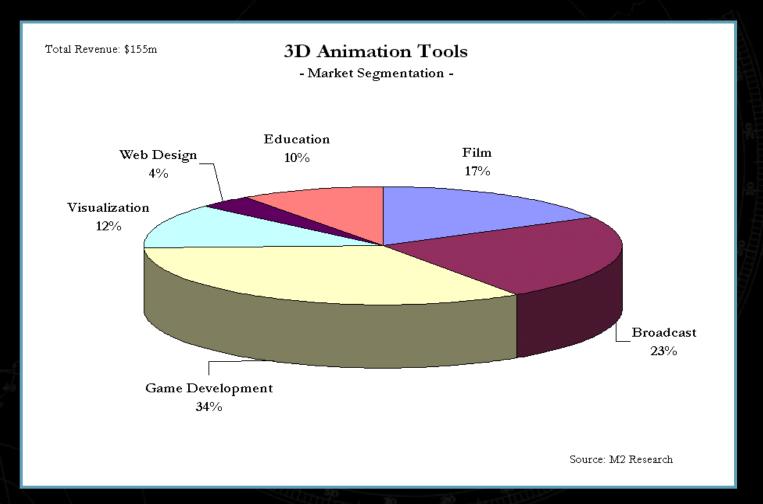
Breakdown of 3D Software by Application - 2000



Source: M2 Research



# **Animation Segment**





# Animation



A collection of autonomous rovers and space vehicles that may be part of the scientific exploration of Mars © 2000 Jet Propulsion Laboratory California Institute of Technology



# Animation



Wild Jungle - Motion ride ©2000 Shinji Torigoe, Shingo Yasumaru SEGA Corporation



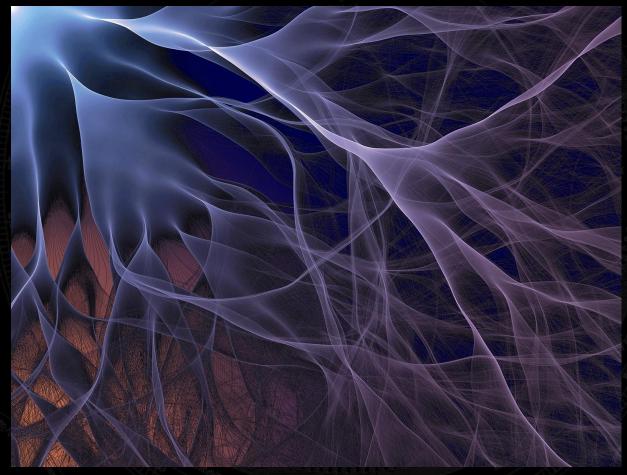
# Animation - Scientific Visualiza



Capitol Zoom ©2000 Gregory W. Shirah, NASA/GSFC Scientific Visualization Studio



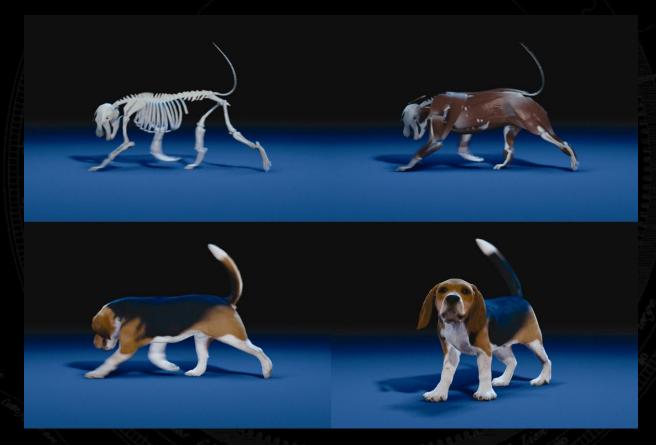
# Art



Transport VI © 2000 Eric Heller



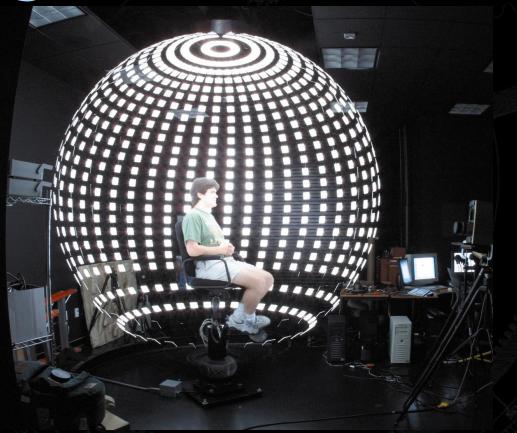
# Modeling



Skinning Cats and Dogs Using Muscle Deformations ©2000 Rhythm & Hues Studios



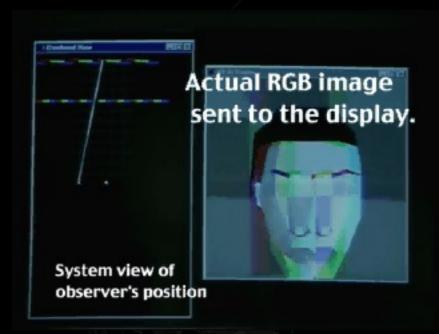
Lighting



Light Stage 2.0 © 2000 Institute for Creative Technologies



# **Stereoscopy**





Autostereoscopic image of a virtual face ©2000 Ken Perlin, Salvatore Paxia, Joel S. Kollin Media Research Laboratory, Dept. of Computer Science New York University



# Interactiv

e



Informative Art © 2000 PLAY - Interactive Institute



# **Education**



**Robert Negrete** 



**Danny Chung** 

Los Angeles County High School for the Arts 1 EXPLORE

EXPLORE INTERACTION AND DIGITAL IMAGES